

B1 (b) a nucleic acid molecule that differs from the nucleic acid molecule of (a) in codon sequence due to the degeneracy of the genetic code, and
(c) complements of (a) or (b).

2. The isolated nucleic acid molecule of claim 1, wherein the isolated nucleic acid molecule comprises SEQ ID NO:1.

3. The isolated nucleic acid molecule of claim 1, wherein the isolated nucleic acid molecule comprises SEQ ID NO:3, SEQ ID NO:5 or SEQ ID NO:50.

4. The isolated nucleic acid molecule of claim 1, wherein the isolated nucleic acid molecule codes for a polypeptide comprising SEQ ID NO:2.

5. The isolated nucleic acid molecule of claim 1, wherein the isolated nucleic acid molecule codes for a polypeptide comprising SEQ ID NO:4, SEQ ID NO:6 or SEQ ID NO:51.

6. An isolated nucleic acid molecule selected from the group consisting of
(a) a unique fragment of nucleic acid molecule of SEQ ID NO:1, and
(b) complements of (a),

B2 provided that the unique fragment includes a sequence of contiguous nucleotides other than the exact sequence of any sequence selected from the sequence group consisting of
(1) sequences having the database accession numbers of Table 1,
(2) complements of (1), and
(3) fragments of (1) and (2).

7. The isolated nucleic acid molecule of claim 6, wherein the sequence of contiguous nucleotides is selected from the group consisting of:

- (1) at least two contiguous nucleotides nonidentical to the sequence group,
(2) at least three contiguous nucleotides nonidentical to the sequence group,
(3) at least four contiguous nucleotides nonidentical to the sequence group,
(4) at least five contiguous nucleotides nonidentical to the sequence group,
(5) at least six contiguous nucleotides nonidentical to the sequence group, and

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(6) at least seven contiguous nucleotides nonidentical to the sequence group.

8. The isolated nucleic acid molecule of claim 6 or 7, wherein the fragment has a size selected from the group consisting of at least: 8 nucleotides, 10 nucleotides, 12 nucleotides, 14 nucleotides, 16 nucleotides, 18 nucleotides, 20, nucleotides, 22 nucleotides, 24 nucleotides, 26 nucleotides, 28 nucleotides, 30 nucleotides, 50 nucleotides, 75 nucleotides, 100 nucleotides, and 200 nucleotides.

9. The isolated nucleic acid molecule of claim 6 or 7, wherein the unique fragment encodes a peptide which is a fragment of a polypeptide consisting of SEQ ID NO:2.

10. The isolated nucleic acid molecule of claim 8, wherein the unique fragment encodes a peptide which is a fragment of a polypeptide consisting of SEQ ID NO:2.

11. An expression vector comprising the isolated nucleic acid molecule of claims 1, 2, 3, 4 or 5 operably linked to a promoter.

12. An expression vector comprising the isolated nucleic acid molecule of claim 9, operably linked to a promoter.

13. An expression vector comprising the isolated nucleic acid molecule of claim 10, operably linked to a promoter.

14. A host cell transformed or transfected with the expression vector of claim 11.

15. A host cell transformed or transfected with the expression vector of claim 12.

16. A host cell transformed or transfected with the expression vector of claim 13.

Remarks

Claim 1 has been amended to remove the limitation of "deletions, additions and substitutions of (a) which code for a polypeptide having RIP60 activity." As discussed below, as